UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

ROBERT E. MORLEY, JR., et al.	)	
	)	
Plaintiffs,	)	
	)	
vs.	)	
	)	**Case No. 4:14cv172**
	)	**Case No. 4:10cv2243 SNLJ**
	)	**CONSOLIDATED**
SQUARE, INC., et al.,	)	
	)	
Defendants.	)	
and		
	)	
SQUARE, INC., et al.	)	
	)	
Plaintiffs,	)	
	)	
vs.	)	
	)	
REM HOLDINGS 3, LLC,	)	
	)	
Defendant.	)	

MEMORANDUM AND ORDER

This matter is before the Court on cross-motions to compel (#141, #150). Plaintiff Robert Morley's ("Morley") and his company REM Holdings 3, LLC ("REM")

(collectively, "Morley") brought this action against defendant Square, Inc. and its founders, defendants Jack Dorsey and James McKelvey (collectively, "Square").[1]

Dr. Morley claims that the defendants improperly use his contributions to the defendants' "Square Reader" technology and wrongfully cut him out of the business. The Counts that remain unstayed in this case pertain to plaintiffs' claims for joint venture, trade secret, and related claims. In their Motion to Compel (#141), plaintiffs state that defendants have refused to provide basic information about technical operation, usage, and licensing of the "Square Reader" technology at the heart of this litigation. Specifically, plaintiffs seek production of documents responsive to their Requests for Production 1, 3, 4, 44, 45, 47, 48, and 50. Those seek documents as follows:

- technical and manufacturing documents—schematics, source code, and the first dates of manufacture and use—for each generation of the Square Reader and accompanying application (Request Nos. 1, 3,4, 47, 48).
- documents reflecting Square's technology licensing policies (Requests 44 and 45).
- Information about customer usage of the Square Reader (Request 50).

[1] This matter consists of two consolidated actions. Case No. 4:10-cv-2243 has been stayed in its entirety pending resolution of patent issues by the Patent and Trademark Office. Morley and his company are the defendants in that case. Morley and his company are the plaintiffs in Case No. 4:14-cv-172; the complaint in that matter includes three patent-related counts that are currently stayed, but a number of state-law counts are active and are the subject of discovery disputes addressed in this Memorandum & Order.

Plaintiffs' document requests were served on December 18, 2014. Defendants responded January 20, 2015. The defendants' primary objection to providing responses to those requests was plaintiffs' lack of specificity of plaintiffs' trade secret allegations. Plaintiffs have thus supplemented identification of their trade secrets, specifically in response to defendants' Interrogatory No. 5. Defendants maintain that plaintiffs' supplementation remains inadequate. As a result, defendants filed their own cross-motion to compel (#150), seeking adequate explication of plaintiffs' trade secrets before turning over technical materials.

Plaintiffs state they have articulated their trade secrets with sufficient particularity in that Morley's identification of his card reader invention and methods of decoding information from that card reader put Square on notice of plaintiffs' allegations. Defendants accuse plaintiffs of seeking detailed design information to mold their trade secret claims to the evidence and also to disrupt Square's business and increase costs of this litigation.

Plaintiffs' trade secrets, as pleaded and described in plaintiffs' pre-motion interrogatory responses, are (1) Morley's invention of reading a magnetic stripe of a credit card (or similar card) with a card reader, inputting the signal of the card reader into the audio jack of a mobile device, and decoding that signal into the card information using the processing capability of the mobile device, and (2) Morley's methods for decoding the signal from a card reader into information indicative of the data encoded on the card. Morley states that he disclosed his invention and methods to defendants in confidence and

in reliance on defendants' representations that the parties were involved in a joint enterprise. He states that the invention and methods were not known to other persons, as evidenced by the fact that Square entered the market with a "head start in the mobile card transaction industry." (#143-4 at 25.) Morley further states that, before the publication of the patents at the heart of the lawsuit, the invention and methods were secret. All of that information was conveyed by plaintiffs to defendants in their first interrogatory responses. Plaintiffs supplemented their responses with more detailed, somewhat repetitive descriptions of the technology. For example, Morley states that the trade secrets are "embodied in the prototypes, designs, and contributions Dr. Morley developed as part of the joint venture, including the one pictured at REM0001565-68, and those provided by Dr. Morley to Sam Wen and to Tristan O'Tierney and Jim McKelvey on March 5, 2009." (*Id.* at 28.) Morley also identifies the necessity of using spring-loaded read heads, the necessary head-to-stripe contact and force required in the spring in those read heads, and the necessity for a resistor in the read head to avoid software complications. Morley additionally provides more detail regarding the decoding methods he employed, and he cites to the "source code Dr. Morley helped develop as part of the joint venture, which Plaintiffs will make available for inspection consistent with the Court's Orders." (*Id.* at 38.)

After a September 11, 2015 telephone conference with the Court, the parties again attempted to reach an agreement. Per defendants' request, plaintiffs set forth a numbered

list of Dr. Morley's trade secrets and an identification of each element of those trade secrets, both in a limiting (as opposed to an "including but not limited to") fashion:

> 1. Dr. Morley's headphone-jack card reader invention, which is defined in the following patent claims:
>
> a. All claims of the '729 patent;
> b. All claims of the '394 patent;
> c. Claims 1–6 and 14–20 of the '248 patent;
> d. All claims of the '946 patent;
> e. All claims of U.S. Patent Application 14/083, 315;
> f. All claims of U.S. Patent Application 14/444,608;
>
> 2. Dr. Morley's algorithm for decoding an audio signal from a headset-jack card reader on a smart phone, comprising the steps:
>
> a. Peak detection;
> b. Determining 1s and 0s from the distance between peaks;
> c. Start sentinel detection;
> d. Error checking: parity and longitudinal redundancy check;
> e. Framing of 5 bit characters in track 2;
> f. Odd parity bit check;
> g. End sentinel detection;
> h. Determination of stable 0s duration in leading 0s;
> i. Low pass filtering to reduce noise;
> j. Inverse filtering to undo phase distortion of high pass filter.
>
> 3. Related to both of the above, the trade secret idea of partitioning the functions of a traditional magnetic stripe card reader such that the card reader hardware is minimal and the resources of the smart phone perform most of the work.

(#236-2 at 18-19).

Under the Missouri Uniform Trade Secrets Act, a "trade secret" consists of "information, including but not limited to, technical or nontechnical data, a formula, pattern, compilation, program, device, method, technique, or process that…derives independent economic value…from not being generally known to [or] ascertainable by proper means by other persons…and is the subject of efforts that are reasonable under the

circumstances to maintain its secrecy." § 417.453 RSMo; *see also Kforce Inc. v. Beacon Hill Staffing Groups LLC*, No. 4:14cv1880 CDP, 2015 WL 128060, *7 (E.D. Mo. Jan. 8, 2015). The burden of proving the existence of a trade secret lies with the party seeking its protection. *Kforce*, 2015 WL 128060, at *8. "Evidence of purported 'trade secrets' must be more than general assertions, but must be sufficiently specific to allow a determination by the court." *Id.*

Defendants' generalized criticism of plaintiffs' "trade secrets" identification is that the identified "trade secrets" --- the card reader invention and decoding methods --- were never a secret. That argument, however, is more properly addressed through a motion for summary judgment. Currently, however, plaintiffs have sufficiently stated that the card reader invention and decoding methods were not available in the public domain (at least not until they were disclosed in patent applications).

With respect to Trade Secret #1, plaintiffs have identified a specific prototype "card reader" in their interrogatory answers. (#143-4 at 28.) Plaintiffs articulated that the trade secret includes "the necessity of using spring-loaded read heads; the necessary head-to-stripe contact and force required in the spring in those read heads; and the necessity for a resistor in the read head to avoid software complications." (*Id.*) Plaintiffs also referred to certain patents for "further detail." (*Id.*) Plaintiffs' latest iteration of Trade Secret #1 (#236-2 at 42) incorporates even more patent claims --- approximately 100 in all, according to defendants.

In response to plaintiffs' reference to the patent claims, defendants maintain that the trade secret description is all the more open-ended and altogether unintelligible. As the Court understands defendants' argument, plaintiffs may eventually rely on any one of the countless combinations of those 100 claims as their operative trade secret. Plaintiffs' failure to now disclose the combination or combinations opens the door, defendants argue, for reverse engineering after defendants disclose their own technical specifications for the card reader invention. However, should plaintiffs later reveal a trade secret description that has the kind of specificity defendants seek (after failing to do so for months), then an inference of reverse engineering may be made that would indeed be detrimental to plaintiffs' case. At this point, though, the Court finds that plaintiffs' card reader description is sufficiently specific.

Next, with respect to Morley's ten-step algorithm for decoding, Trade Secret #2, defendants complain that plaintiffs have not committed to a "binding representation" that the secret requires all ten steps to be practiced in the order listed. At the same time, defendants acknowledge that the plaintiffs state that the algorithm "compris[es]" the ten steps listed --- and that "comprising" means that each of the identified steps is essential and must be present. *See Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997). The Court finds that the plaintiffs' explanation of Trade Secret #2 speaks for itself in that there is no suggestion that the order is not binding, and it is therefore a sufficient response.

Trade Secret #3 appears to be a new addition, at least as organized in the plaintiffs' third supplemental response. Plaintiffs have couched this trade secret as being related to

(and therefor dependent on) Trade Secrets #1 and #2. Although Trade Secret #3 does not present any new ideas in this litigation, it does use vague language that should be improved upon. The Court shares defendants' concerns here, which go to the trade secret's use of imprecise terms. Plaintiffs shall answer the following questions with respect to Trade Secret #3:

1. What are the "minimal" "hardware" components contemplated by the alleged trade secret?

2. Which functions must the phone perform to constitute "most of the work?"

Plaintiff shall provide a final supplement as set forth in this Memorandum and Order.

Accordingly,

IT IS HEREBY ORDERED that plaintiffs' motion to compel (#141) is GRANTED in part and DENIED in part.

IT IS FURTHER ORDERED that defendants' motion to compel (#150) is GRANTED in part and DENIED in part.

IT IS FINALLY ORDERED that plaintiffs shall submit a final supplement that answers the questions set forth in this memorandum by November 3, 2015.

Dated this 27th day of October, 2015.

STEPHEN N. LIMBAUGH, JR.
UNITED STATES DISTRICT JUDGE